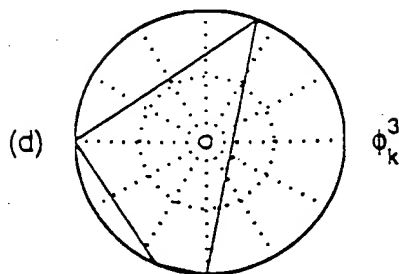
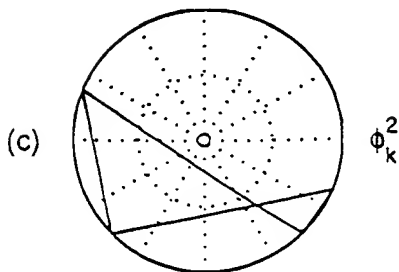
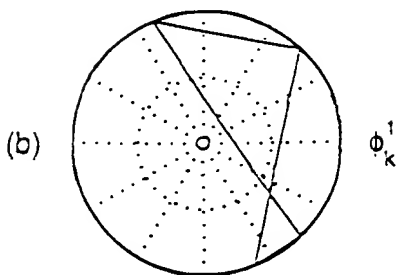
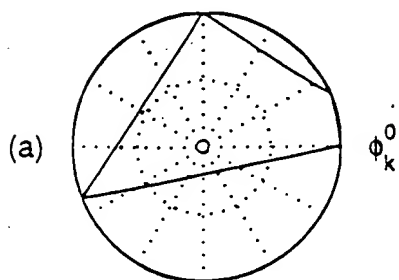


FIG. 1

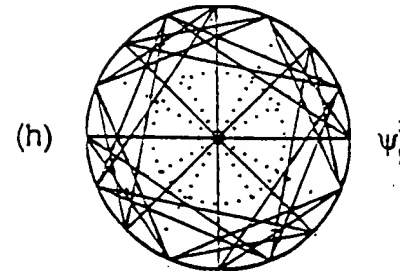
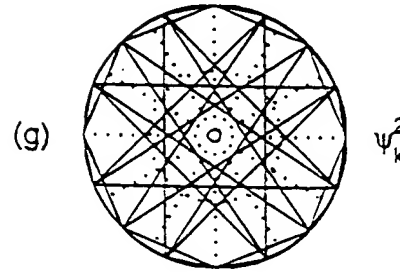
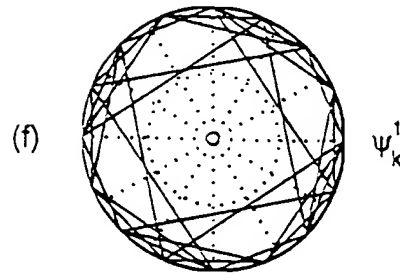
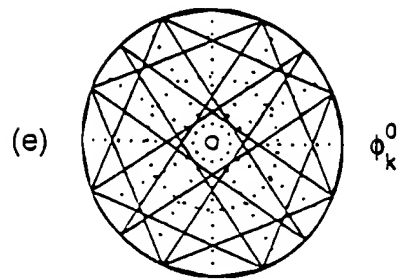
662300" 662300" 662300"

00403 00403 00403

modulation codes,  $\phi_k^q$



switching codes,  $\psi_k^q$



# SZ(8/64) code

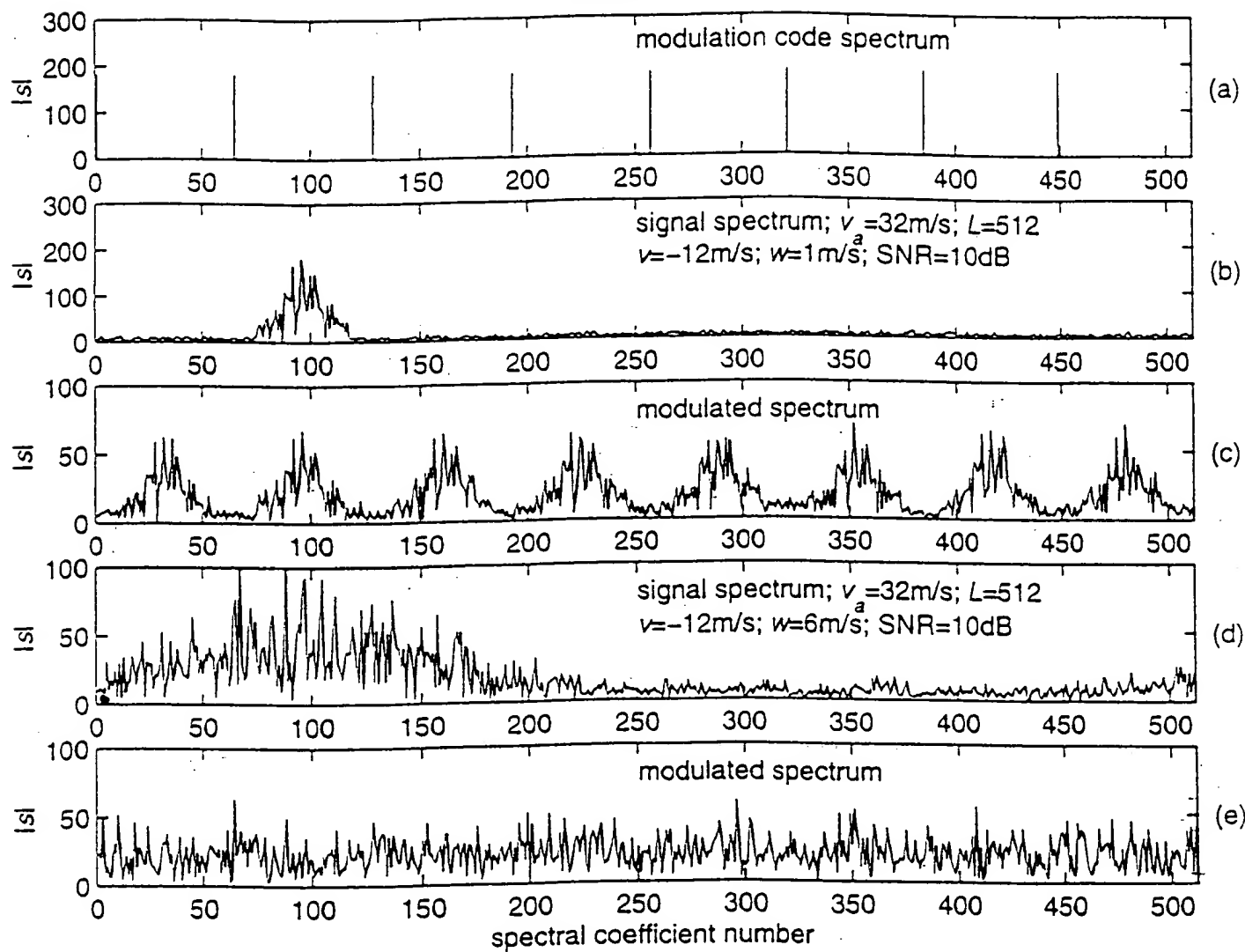


Fig # 3

0044039-002799

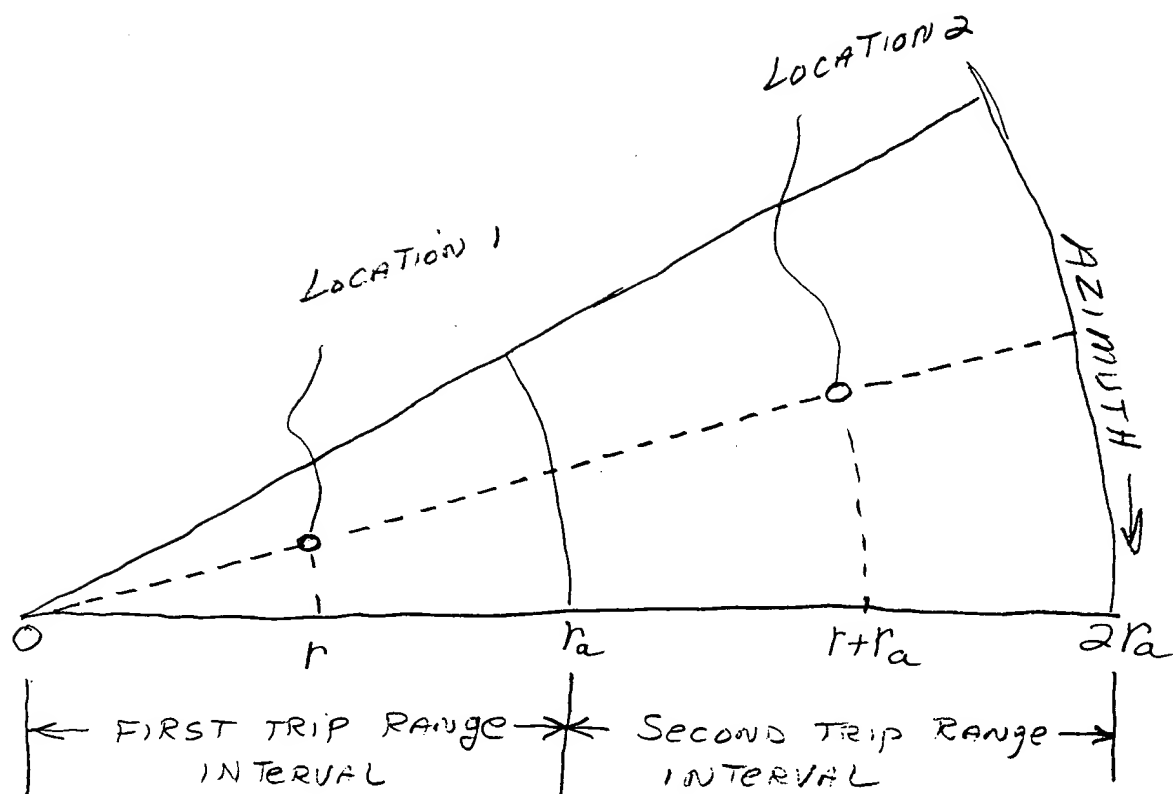


FIG. 4

short PRT time series input

step#1 cohere 1st trip  $\rightarrow E_1$

#2

GCF

GCF map

#3

autocovariance  
process  $E_1$

$p_1, v_1, w_1, w_1'$

#4

cohere 2nd trip  $\rightarrow E_2$

#5

autocovariance  
process  $E_2$

$p_2, v_2, w_2, w_2'$

#6

yes

Is GCF in?

no

process  $E_1$

yes

process  $E_2$

$(p_2, v_2, w_2)$

#7

compute optimum  $v_c$   
and apply GCF  
correction to  $v_1$

$(p_1, v_1, w_1)$

no

notch & cohere  $\rightarrow e_2$

#8

autocovariance  
process  $e_2$

$v_2$

#9

deconvolve

$w_2$

notch & cohere  $\rightarrow e_1$

$p_1$

autocovariance  
process  $e_1$

$v_1$

deconvolve

$w_1$

Fig 5

6230-60000

SZ(8/64) code,  $L=256$ ,  $\text{SNR}_2=20\text{dB}$ ,  $v_a=32\text{m/s}$

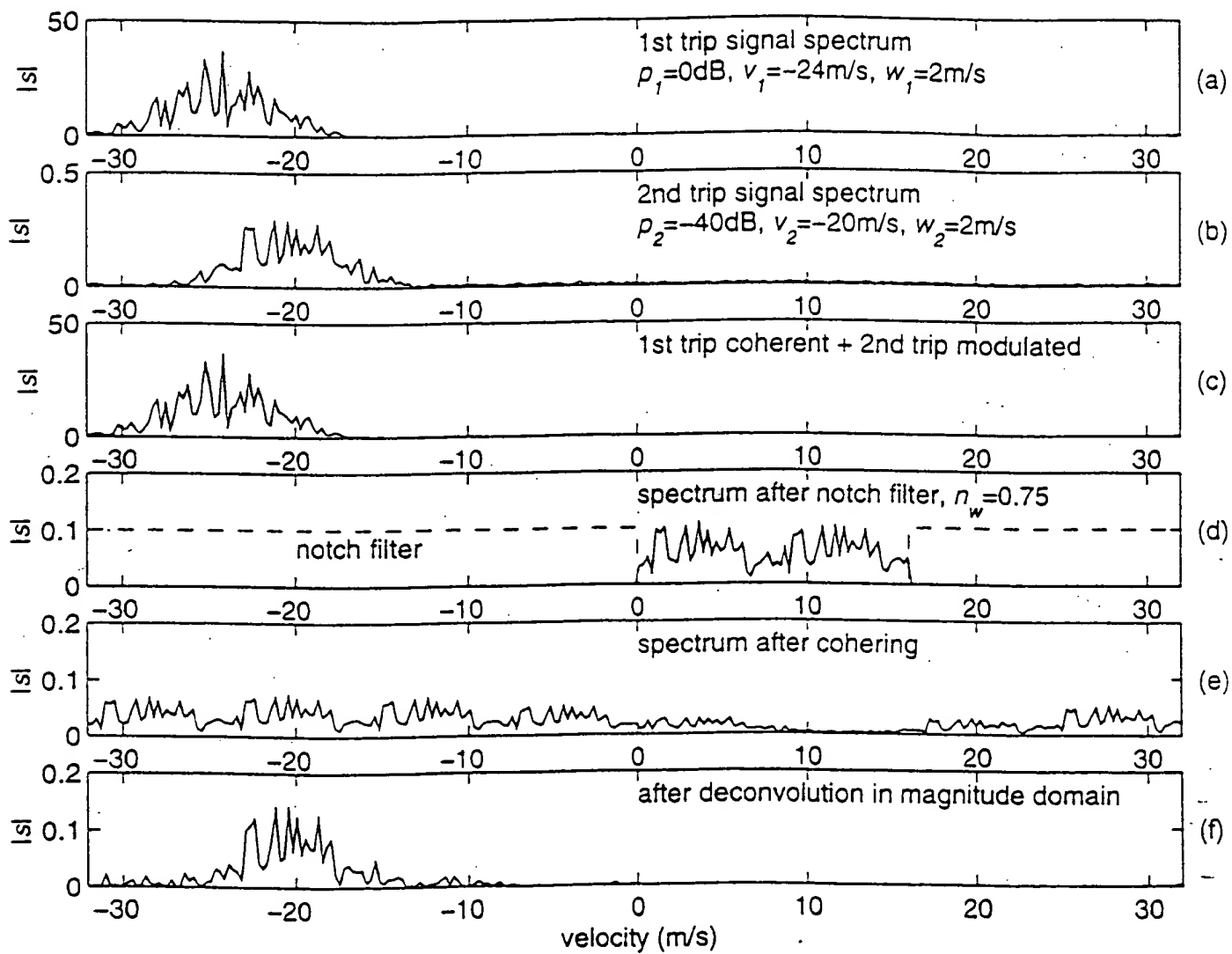


Fig 6

064260" 064260" 064260"

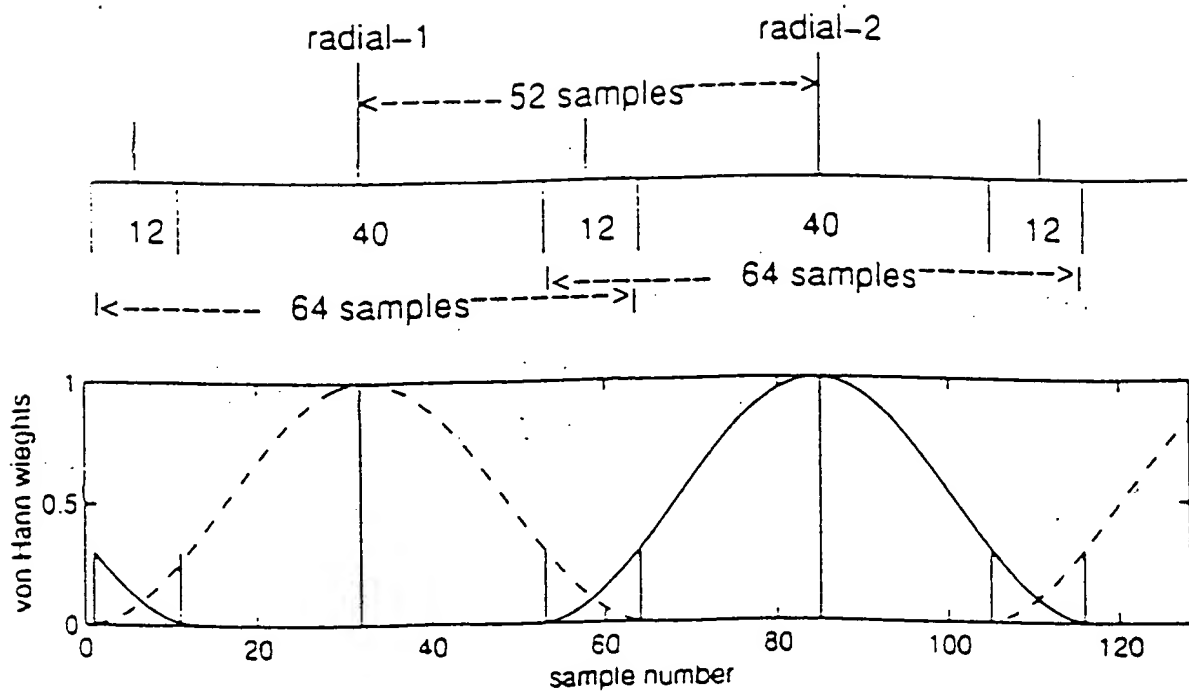
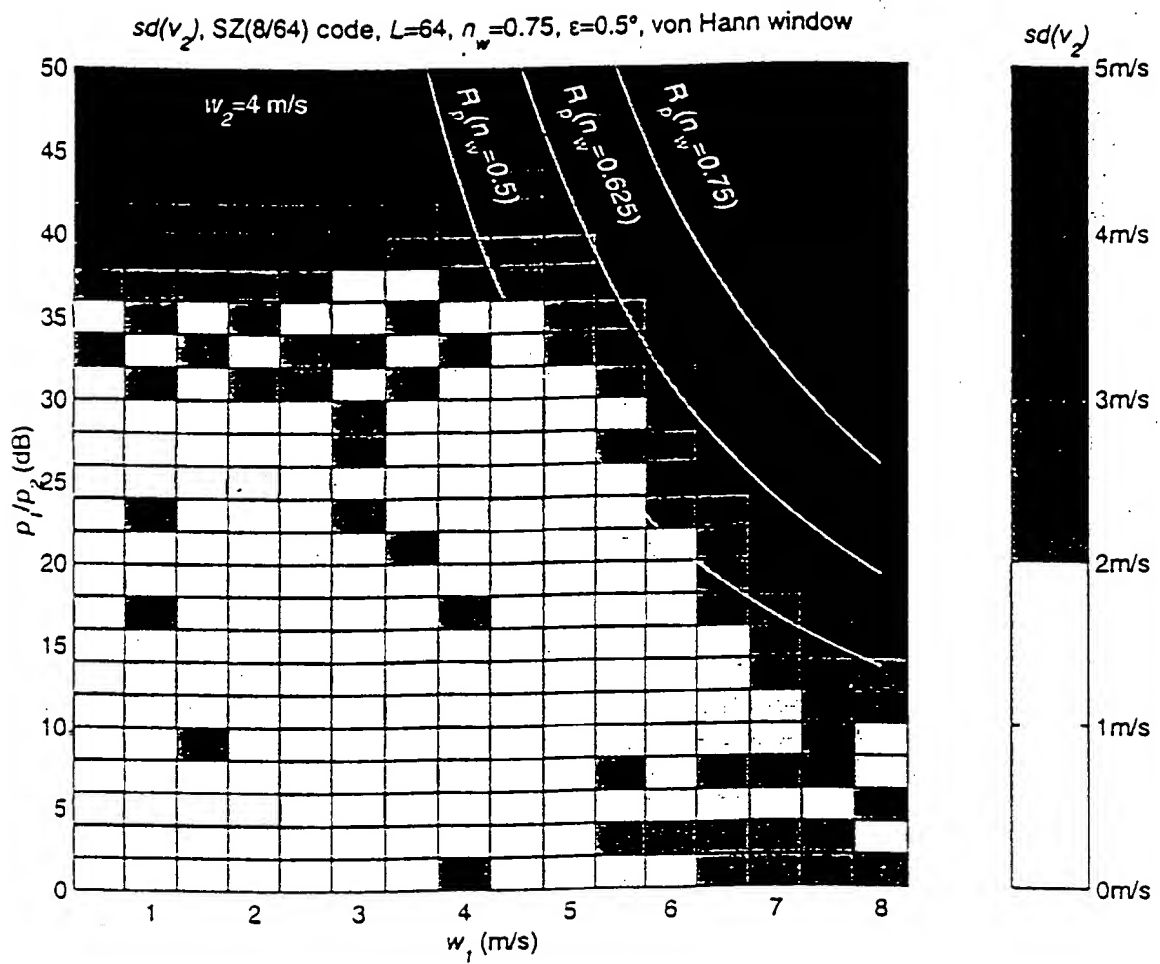


FIG. 7

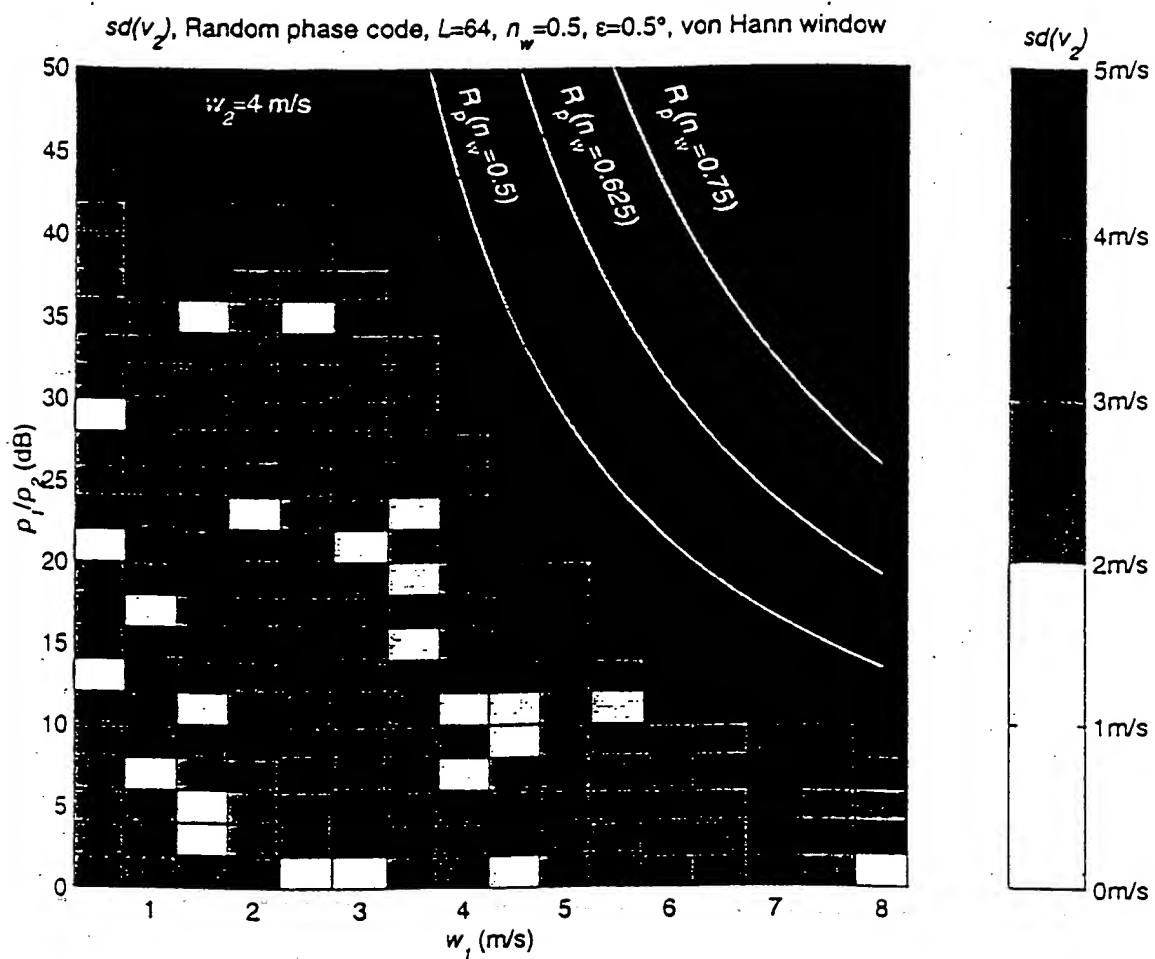


Plot of  $sd(v_2)$  as a function of  $p_1/p_2$  and  $w_1$  for SZ(8/64) coding scheme.

coding

Fig 8a





Plot of  $sd(v_2)$  as a function of  $p_1/p_2$  and  $w_1$  for random phase coding scheme.

Fig. 86

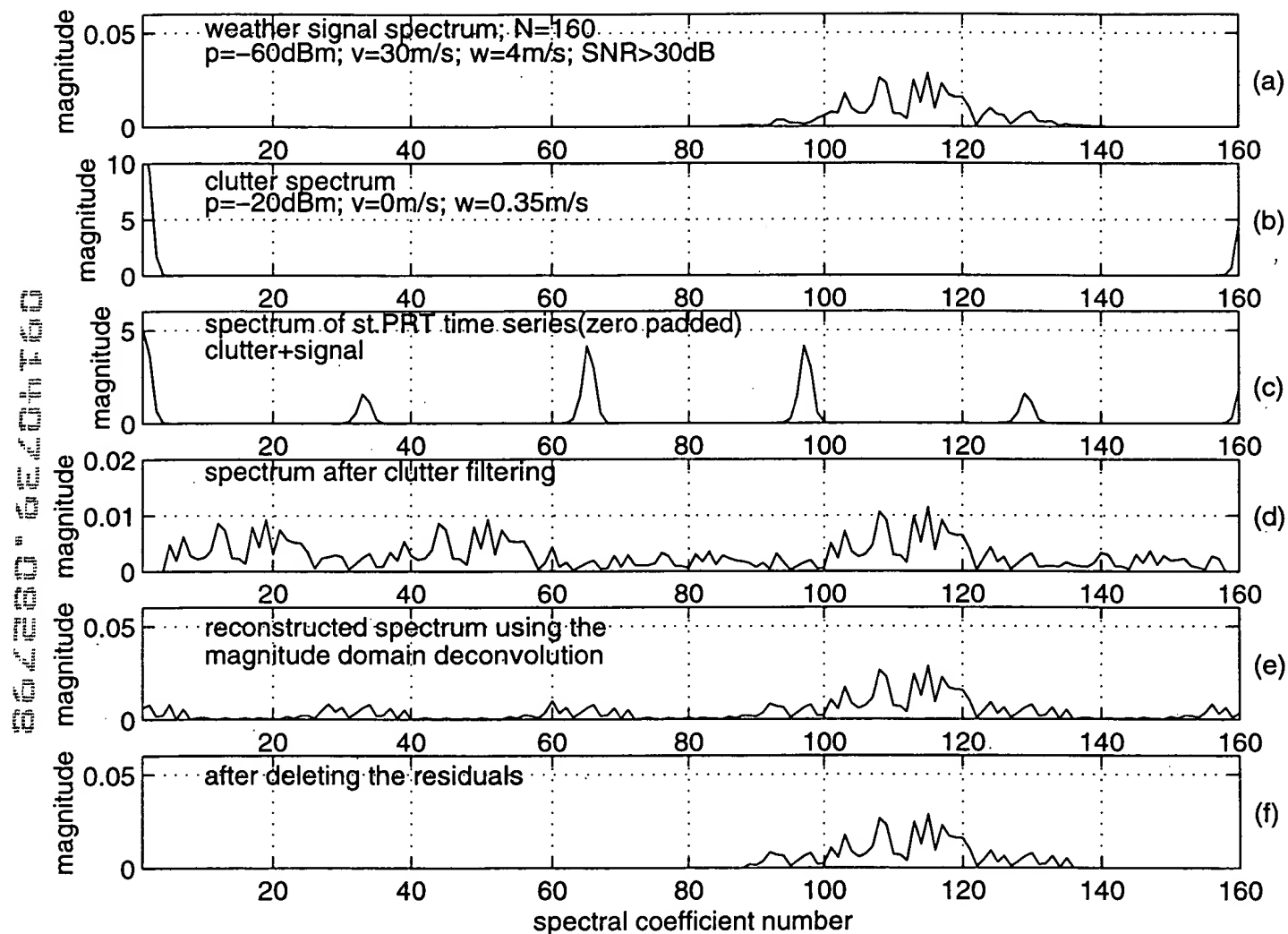


Fig. 9

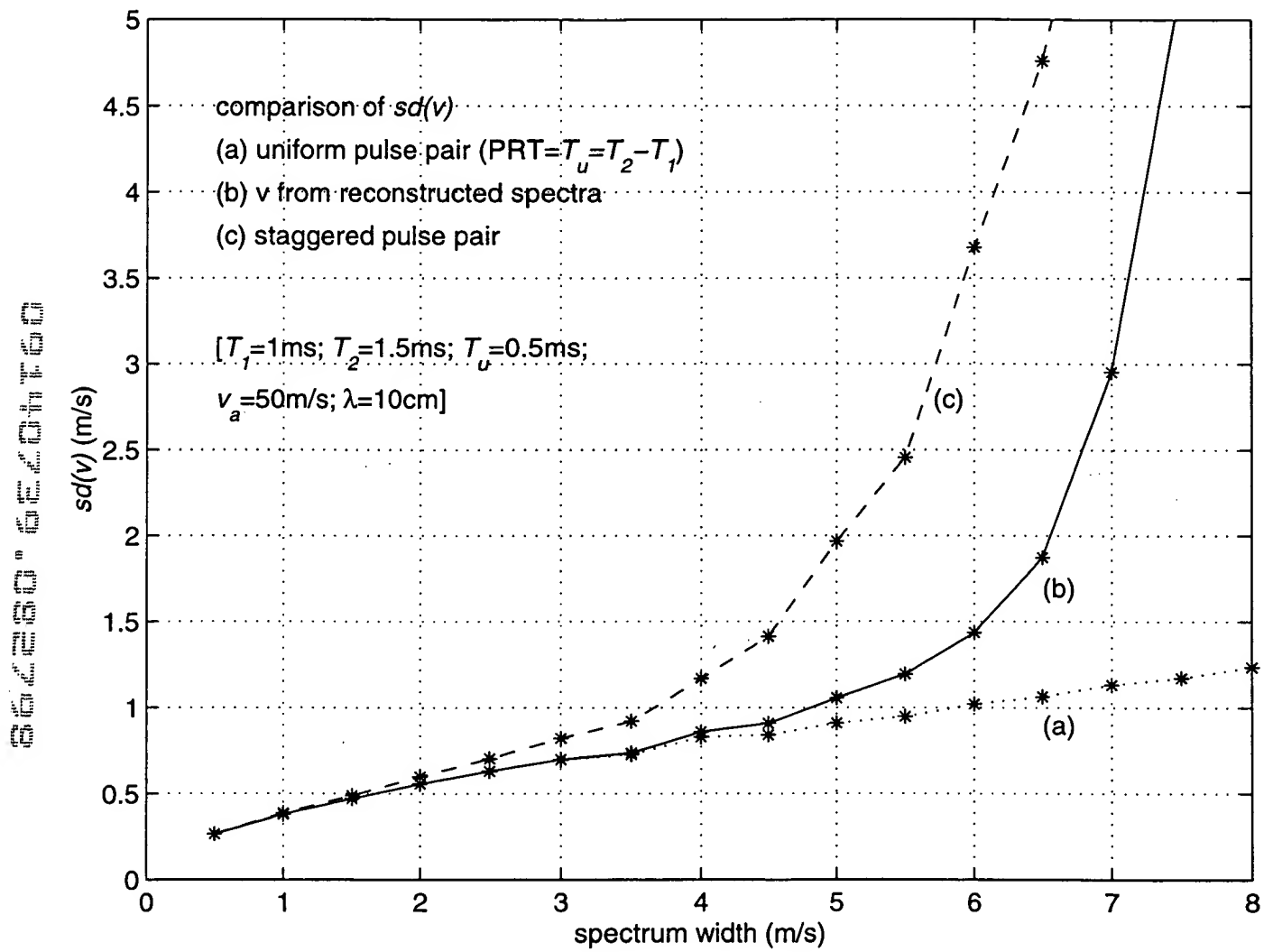


Fig. 10

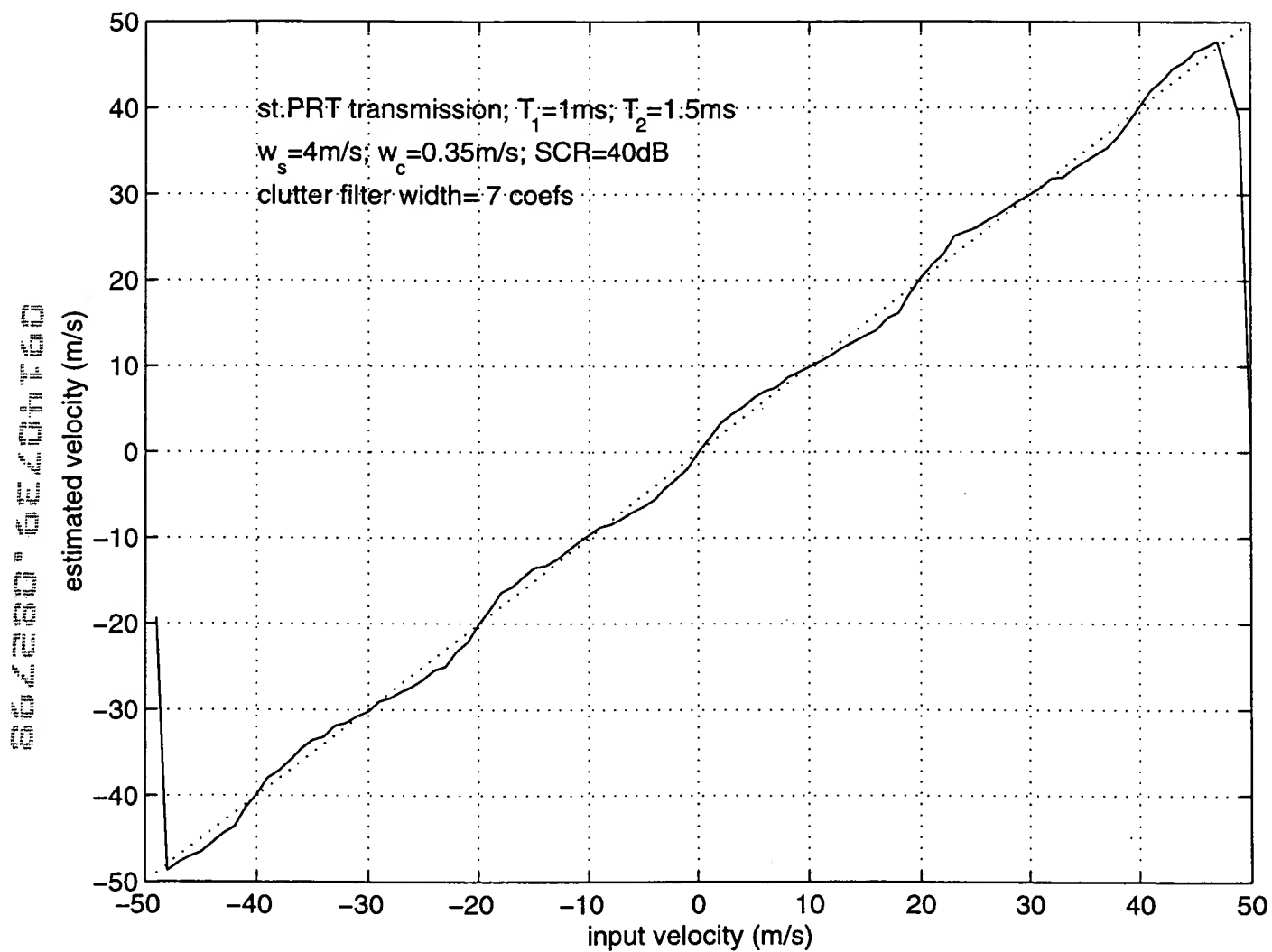


Fig. 11